

Understanding “Authenticity” in Records Management:

A Survey of Practitioners and Users

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Introduction

The ensuring and preserving of authenticity in electronic records has become a dominant theme in recent archival research. The University of Pittsburgh Project on *Functional Requirements for Evidence in Record-keeping* (1993-1996) applied the concept of “literary warrant” to develop a model of systems and procedural requirements that would meet accepted societal mandates for evidence in the electronic records. The University of British Columbia’s (UBC) *Preservation of the Integrity of Electronic Records* conceptually identified and defined the requirements for ensuring the integrity of reliable and authentic electronic records. The U.S. Department of Defense’s *Records Management Task Force Project* drew on both of these projects and proposed a comprehensive set of Electronic Record Management Task Requirements (1994-1996). The ongoing InterPARES Project on *Preservation of Authentic Records in Electronic systems* is building on the previous UBC Project to identify the elements of electronic records which are necessary to maintain the authenticity of those records over time; and to develop procedures and resources, strategies and standards necessary to preserve authentic electronic records.

To date, no project has specifically examined the extent to which actual users and managers of records understand the outcomes of these projects or the terms, or the

definitions of terms, like “authenticity,” “reliability,” and “evidence” around which they are built. The projects mentioned above are theoretically based and academically oriented. The models they have developed have only been applied in a limited number of real world settings, and it remains to be determined the extent to which such models accurately map onto the settings. For example, those settings still need to be further examined for the values, norms and language of practitioners.

My research is another approach first to examine practitioners’ terms and concepts about the notion of authenticity in their own words; and second, based on the findings, to build a theoretical framework that will be comprehensible to practitioners and users. From this examination of practitioners’ actual usage of the concept of authenticity, I hope to demonstrate the following points: 1) to identify variables used in defining the concept of authenticity in the management of electronic records in different organizational contexts; 2) to develop the variables into a model that can assist records practitioners and users to think about authenticity in different organizational contexts; 3) and to use this model as a means of mapping from the language and findings of theoretical research projects onto the language and archives of users.

This paper reports the result of a pilot study for the long-term research project and focuses on practitioners’ understanding of the concept of authenticity as derived from a small set of survey data. This survey was undertaken to examine how different communities use and understand the concept of authenticity in creating, managing and using records. This project examined particularly how people currently consider issues related to authenticity in their professional activities, as they use and transmit paper

records and electronic records, and the language that professionals actually use when talking about authenticity.

Methodology

A preliminary survey was conducted in May 1998. The survey asked respondents if they had considered issues of authenticity in their work processes. The attached questionnaire (Appendix 1) was posted and distributed on the Internet to ten listserv groups via email. This method was used because it was likely to reach persons who frequently use electronic communication and have experiences with electronic records in their professional work activities. The listservs used were the Archival Cataloging Listserv, Archives and Archivists Listserv, Conservation DistList, Association for Moving Image Archivists, Electronic Records Listserv, Digital Libraries Research mailing list, Rare Books and Special Collections, and Records Management Listserv. Participants' identities were kept confidential and participation was completely voluntary. The main grouping of respondents was comprised, therefore, of records managers/archivists and librarians.

One hundred four questionnaire responses were received, consisting of 42 from records managers/archivists, 30 from librarians, 6 from system analysts/programmers, 5 from administrators, 4 from information managers, 2 from attorneys and 14 from others. Internet survey is a method generally considered to have low validity, in particular because the numbers of populations in listserv groups can not be easily determined and therefore Internet survey may not represent the opinion or experiences of the population in the listserv groups. In this case, the method was chosen because the respondents in

this survey were expected to be those who have thought about issues of authenticity seriously in the context of electronic records and communications and may have had experience in ascertaining authenticity in records. This was exactly the population that the researcher wanted to survey. The answers from the respondents were enough to assist in the developments of a model and instruments to use both in a pilot study and in the long-term research project.

Coding and Data Analysis

The emphasis of this study is on the content analysis of the words used in response to the survey. The survey questionnaire asked respondents first about their background, their experience with electronic records and communications, authenticity of paper records, authenticity of electronic records, and their preferred records format. This paper briefly describes the entire statistics and then focuses on the authenticity of the three main questions: first, the problem of proving authenticity; secondly, the difficulties of judging something authentic; finally, the definition of authenticity itself. The problem of proving authenticity suggests precisely where professionals have needed to prove that the authenticity of records is important in their professional activities. Judging something “authentic” involves us in professionals’ assessment of judging whether a record is authentic. Finally, this paper analyzes the definition of authenticity that practitioners themselves use and understand in the context of their professional activity.

All the answers were thematically coded by the researcher. Coding reliability for the complex categories was checked by using a second coder. The data were organized and analyzed using Microsoft Excel.

Questions 7, 8, 11, and 12 were binary (yes/no) questions, so they were analyzed quantitatively; and two sets of questions, 7 and 11, and 8 and 12, were analyzed together to compare the difference between paper records and electronic records. Questions 9, 10, 13, 14, and 16 were coded by theme because they were open-ended questions that asked respondents to write down their own thoughts. The survey questionnaire had the same questions in a parallel form to compare the difference of paper records and electronic records. Questions 9 and 13, and 10 and 14 were, therefore, analyzed using the same categories of theme.

Findings and Discussion

First, the results presented in Figure 1 provide simple descriptive statistics. The results of questions 8 and 12 are provided in Figure 2. In Figure 1, 79 respondents (76%) have considered issues related to the authenticity of paper records, and 83 respondents (80%) indicated that they have considered issues related to the authenticity of electronic records. It does not appear unreasonable to extrapolate from these findings that the majority of respondents consider issues related to authenticity of records to be of concern to them.

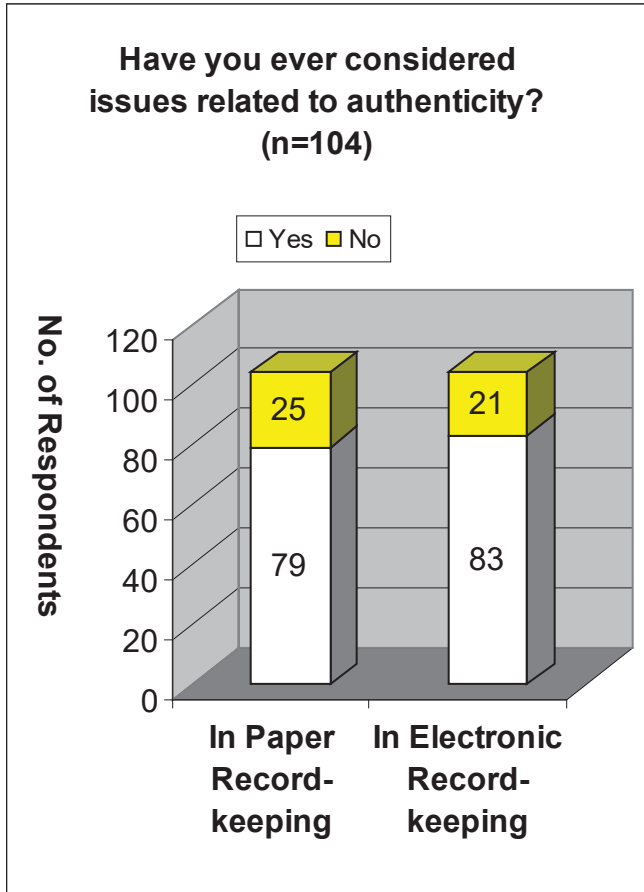


Figure 1. Consideration of Authenticity

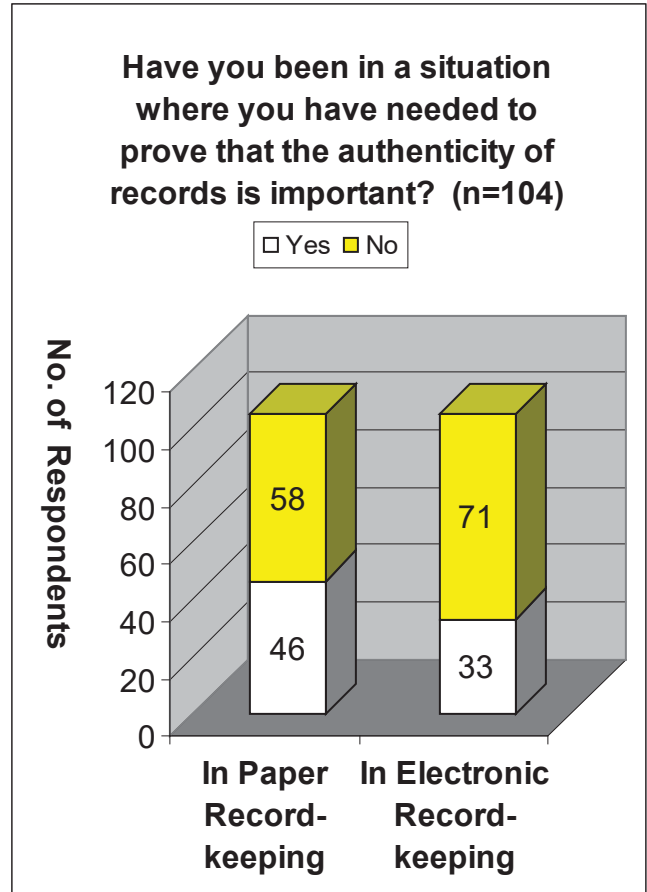


Figure 2. Need to Prove Authenticity

As seen in Figure 2, only 46 persons working with paper records (44.23%), and only 33 persons with electronic records (31.73%), have been in a situation necessitating that the authenticity of records be demonstrated. In other words, while most respondents have concerned themselves with issues of authenticity, far fewer have ever actually needed to prove the authenticity of records.

Eight frequent themes emerged from the responses to the next parallel questions about paper records and electronic records (Can you describe the situation where you have needed to prove that the authenticity of paper/electronic records is important?): Supporting litigation, Proving/verifying, Authenticating/validating, Preserving/digitizing, Converting version; Ensuring accuracy, Ensuring quality, and Meeting contractual obligations (See Figure 3 for descriptions).

Figure 3. Descriptions of Themes from Proving Authenticity

Theme : Descriptions
<p><i>Supporting litigation:</i> Authenticity is needed for supporting litigation, lawsuits, court cases, or other legal and judicial actions in court. e.g., “Authentication of records is necessary to introduce any document or record into evidence at a trial or motion. We were asked to do so during a trial recently.”</p>
<p><i>Proving/verifying:</i> Authenticity is needed for proving or verifying. e.g., “The situation was to prove that I was not the person who posted a scurrilous message to an Internet discussion group....”</p>
<p><i>Authenticating/validating:</i> Authenticity is needed for authenticating or validating that records are not fake or counterfeit. e.g., “Establishing the authenticity of records is vital in my business since most of the valuable records have been counterfeited.”</p>
<p><i>Preserving/digitizing:</i> Authenticity is needed for converting or digitizing data into different formats. e.g., “We are currently faced with the issue of reformatting electronic media such as videotapes. Deciding on the conversion of cancelled check records from paper to microform.”</p>
<p><i>Controlling the version:</i> Authenticity is needed for deciding the original version or a copy or differentiating between multiple copies in a situation where there are more than two different versions. e.g., “Some times there are 6 copies of the same letter. Of course each is corrected and changed from the earlier on. Then the last is the actual authentic letter which is so after editing and was the one sent to the person or prospect. This is the authentic [one] and sometimes requires time in figuring out which is the real finished one.”</p>
<p><i>Ensuring accuracy:</i> Authenticity is needed for ensuring accuracy or correctness. e.g., “It is necessary to make sure that what is filed is the most accurate and up to date information possible. . . . I have found that often times the system people require the paper files to</p>

ensure the data entered into computer is accurate.”

Ensuring quality: Authenticity is needed for ensuring quality control.
e.g., “Required to document the authenticity of records gathered for quality of products and services.”

Meeting contractual obligations: Authenticity is needed for meeting contracts or contractual compliance.
e.g., “Contract in hand was the original, official copy.”

Table 1 shows the results of two questions with frequencies and percentages.

Table 1. The Results of Proving Authenticity

Theme	Paper Records		Electronic Records	
	Frequency	Percent (%)	Frequency	Percent (%)
1. Supporting litigation	16	33.33	7	20.00
2. Proving/verifying	4	8.33	3	8.57
3. Authenticating/validating	10	20.83	11	31.43
4. Preserving/digitizing	4	8.33	3	8.57
5. Controlling the version	5	10.42	3	8.57
6. Ensuring accuracy	3	6.25	6	17.14
7. Ensuring quality	2	4.17	1	2.86
8. Meeting contractual obligations	4	8.34	1	2.86
TOTAL (n)	47	100	36	100

It is noteworthy that for both paper and electronic records, more than 50% of the respondents indicate two salient themes, “supporting litigation” and “authenticating/validating.” Combined percentages of the two themes equal 54.16% and 51.43% respectively. Moreover, the overall proportions of each answer are similar for both records, implying that the major situations where practitioners feel it necessary to prove authenticity are the same in both paper and electronic records. In considering the differences, with paper records practitioners tend to need authenticity for “supporting litigation” more than “authenticating/validating,” while with electronic records

practitioners primarily require “authenticating/validating.” Another interesting observation is that, in the case of electronic records, “ensuring accuracy” ranks as the third highest percentage, but in the case of paper records, it ranks only seventh among the eight themes. It is understandable that electronic records need to maintain or ensure accuracy more than paper records because electronic records are easily damaged and can be changed and altered more easily than paper records.

Another interesting observation is that with electronic records, other sources are required to verify “accuracy” because electronic records are not self-explanatory for validating. For example, “we rely on the accuracy of catalog records contributed by librarians who are members of our bibliographic utilities (OCLC, RLIN), as well as on records found on the Internet in many other online library catalogs throughout the world. If the item to be cataloged does not match exactly the records we find, we need to determine whether the electronic catalog records are accurate....” Electronic records that are authentic need to be accurate, and then to be considered accurate, they need to match another authoritative sources. To take another example, “phone bills, traffic tickets, electronic funds transfers, home banking transactions, records of phone calls to my stockbroker in which the precise time was critical, timestamps on software releases . . . ,” in this case, time is used to verify accuracy. With paper records, however, respondents answered passively or seemed to believe implicitly in the accuracy of the records as for example, one respondent said, “binding records, which I work with every day, have to be accurate.”

One weakness of these results is the relatively low number of respondents’ answering these questions. Only 47 and 38 persons out of total 104 survey respondents

answered these questions respectively. The low response can be attributed to the difficulty of the questions or to the respondents' relative lack of experience with the targeted situations.

Eight frequent themes emerged from the responses to the next parallel questions concerning paper records and electronic records (How do you judge whether a paper/electronic record is authentic?): Signature, Authentication symbols, Adherence to information management policy, guidelines, and procedures, Authority of source, Physical condition, Comparison with other sources, Unalterability/unchangability, and No criteria. (See Figure 4 for descriptions).

Figure 4. Descriptions of Themes from Judging Authenticity

Theme: Descriptions
<p><i>Signature</i>: Respondents judge if a record is authentic by seeing any forms of signature including hand-written signature, and digital signature.</p> <p><i>Authentication symbols</i>: Respondents judge if a record is authentic by seeing any forms of authentication symbols including seals, certification, watermarks, letterhead, date, mailing, e-mail, all kinds of metadata except signature¹.</p> <p><i>Adherence to information management policy, guidelines, and procedures</i>: Respondents judge if a record is authentic by referring to policy or guidelines, or a procedure manual, etc. within the organization. e.g., “Yes, by providing the written policy and procedures showing a standard method of creating the record....”</p> <p><i>Authority of source</i>: Respondents judge if a record is authentic by referring authority and originality of the source of information. e.g., “what it is; where it came from; what its content is....”</p> <p><i>Physical condition</i>: Respondents judge if a record is authentic by referring physical conditions</p>

¹ There is considerable ambiguity in the overlap between “signature (esp. digital signature)” and “authentication symbols (esp. seals).” They are broken into two categories here because there is a high incidence of “signature” in the survey responses.

and characteristics such as age of paper, printing condition, physical appearances, etc.

Comparison with other sources: Respondents judge if a record is authentic by comparing the original with copies or other sources.

e.g., “verify it in more than one source”

Unalterability/unchangability: Respondents judge if a record is authentic by seeing that no changes have been made in the item.

e.g., “determination of originality of item, mainly checking for illegal photocopies. Is this an original or a copy?”

No criteria: Respondents are unable to judge if a record is authentic because there are no established criteria yet.

e.g., “No organized criteria... No way to do that.”

Table 2 presents the results of two questions with frequencies and percentages.

Table 2. The Results of Judging Authenticity

Theme	Paper Records		Electronic Records	
	Frequency	Percent (%)	Frequency	Percent (%)
1. Signature	29	24.58	7	7.37
2. Authentication symbols	29	24.58	23	24.21
3. Adherence to information management policy, guidelines, and procedures.	11	9.32	12	12.63
4. Authority of source	19	16.10	21	22.11
5. Physical condition	18	15.25	1	1.05
6. Comparison with other sources	6	5.08	11	11.58
7. Unalterability/unchangability	5	4.24	9	9.47
8. No criteria	1	0.85	11	11.58
TOTAL (n)	118	100	95	100

For paper records, 50% of the respondents indicate that “signature” and “authentication symbols” are useful in determining the authenticity of records, e.g., a signature, letterhead markings, official form, handwriting, date, location, and authority person. For electronic records 46% cite “authentication symbols” and “authority of source.” “Authority of source” is highly rated for both formats. For electronic records

“signature” is rated relatively lower than that of paper records, but the criterion, “comparison with other sources” and “no criteria,” are considerably higher. For example, one respondent writes, “I am in the GIS industry and the only way to get ‘true’ information is to ground truth in some cases” because “the electronic record is checked against the item in hand; access points are checked against national authority databases.” Another respondent notes that we need to “compare it to source material or parallel records and other known facts.” For paper records respondents weigh physical conditions more heavily than for electronic records. Respondents list quality of paper, age of paper, type of paper, smell, color, use of photographic and xerographic details, physical location, spelling, format check, nature of ink, contents of document, context of creation, feel, experience, etc. One fascinating observation is that, while only one respondent answers “no criteria” with paper records, eleven respondents give this answer with electronic records. One sample response is, “there is really no good way at present beyond the address on the email, ” or “in the environment in which I work it would be impossible to authenticate some electronic records; word-processing documents in particular would be a problem.” “I would like to know how if there is. I tend not to trust them, because one is not able to look into the persons face.” Such responses imply that definition of authenticity in the realm of electronic records on a macro scale still seems difficult in the working environment.

Seven frequent themes emerged from the third question (Please write down how you would define authenticity in the context of your professional activity.): Authority of source, Accuracy assurance, Originality/genuineness, Quality assurance,

Unalterability/unchangability, Validity/reliability, and Verifying (See Figure 5 for descriptions.)

Figure 5. Descriptions of the Themes from Defining Authenticity

Theme: Descriptions
<p><i>Authority of source:</i> Authenticity is associated with authoritativeness of source and context. e.g., “I define authenticity as being able to be certain that records have been created by the person they say they are, when they say they are and containing true (or perceived to be true) information as related to their context.”</p> <p><i>Accuracy assurance:</i> Authenticity is associated with assuring accuracy or correctness. e.g., “Maintain written standards of process which are followed without deviation. The standards should follow industry guidelines (if such exist).”</p> <p><i>Originality/genuineness:</i> Authenticity is to be original, genuine, and not fake. e.g., “It is the original record created (and copies) at the time of the activity (whatever it may be) and presented as being the facts, conditions, purpose, truth, etc.”</p> <p><i>Quality assurance:</i> Authenticity is associated with assuring quality. e.g., “I work with a large construction company developing its own document control database which I have used for 3 years; I believe that because we get the paper document within a brief amount of time after it is logged in to the database that lends to the authenticity of those records.”</p> <p><i>Unalterability/unchangability:</i> Authenticity is associated with ensuring that no changes are made to the item. e.g., “Any data object in which not a single bit of the binary content has been modified....”</p> <p><i>Validity/reliability:</i> Authenticity is to be valid or reliable. e.g., “When a document is what it claims to be and is from whom it says it is. Authenticity goes hand in hand with reliability....”</p> <p><i>Verification²:</i> Authenticity is to be verified or proved. e.g., “An authentic document or record is one which is intrinsically able to be proved that it is what it purports to be.”</p>

Table 3 presents the result of the question with frequencies and percentages.

² Two themes, “authority of source” and “validity/reliability”, are closely related in their meaning. In this survey, “validity/reliability” was coded only for those words used.

Table 3. The Result of Defining Authenticity

Theme	Records	
	Frequency	Percent (%)
1. Authority of source	33	37.93
2. Accuracy assurance	27	31.03
3. Originality/genuineness	11	12.64
4. Quality assurance	2	2.30
5. Unalterability/unchangability	8	9.20
6. Validity/reliability	2	2.30
7. Verification	4	4.60
TOTAL (n)	87	100

As with the previous cases, the first two themes, “authority of source” and “accuracy assurance”, cover two thirds of the answers (68.93%) relating the definition of authenticity, while “originality/genuineness” ranks third. The total percentage of the first three themes amounts to 81.46%. For “authority of source,” one respondent answers, like “authenticity -- it is a matter of trust; you either trust the organizations you do business with (and they, in turn, trust their employees to be ethical in their work practices) or you don’t. Whether they send you a signed, sealed copy of a paper document, or you get an e-mail with their smtp address, you trust that the person whose signature appears at the bottom is the one who signed it, or the person whose smtp address appears is the one who was sitting at the other end of the transmission.”

Each professional group answered differently depending on the context. One records manager answers, “authenticity with regards to my profession means information is from a reputable source.... the source is important.” One librarian answers, “I would say a document is authentic if it is clearly identified in terms of title, author, and data....” While records managers list for “authority of source” the person (creator, user), authorizing organizations, signature, and originating source, librarians tend to list title,

author, date, and users. Professionals use different terminology in defining the same concept depending on profession. Records managers tend to deal with records as artifacts in the working process, through which they understand the concept of authenticity as related to the process of records management. Librarians manage books and users and accept the concept of authenticity when they formulate users' requests, through which they understand the concept of authenticity as information, which should come from a reliable source. Regarding the theme "accuracy assurance," librarians focus on the accuracy of bibliographic records which would be used for users, while records managers look at records from the perspective of determining whether they conform to established standards.

In order to conduct an in-depth analysis of the terminology used in the definition question, respondents' actual language was analyzed by word frequency. The total number of words in the response was 3,323; after 1,671 occurrences of 155 stop word forms were excluded, the number of unique word forms was 951, and the total number of unique words was 1,652. Words were then clustered by morphological word-stems and counted by their frequency. Appendix 2 lists the top thirty-nine word-stems. They were comprised 16.33% of the total number of running words and 32.90% of the total number of unique words after exclusion of stop words.

Top two stems are *record** and *authent**, which is reasonable considering that those two words were provided in the questionnaire. *Inform** and *docu** rank third and fourth, possibly because these word stems are the most frequently used among persons who deal with records. An interesting fact is that *origin** and *accura** rank sixth and

seventh. *Verif** is in the thirteenth and *prov** is thirty-sixth. The point is that those stems are all directly related to themes of authenticity. Another interesting observation is that there are many stems related to people such as *person**, *author**, and *agen**.

*Trust** and *reliab** that seem directly related to authenticity occur five and four times respectively, even though they are not included in the top thirty percent. *Audit** is considered important by the Pittsburgh Project, but in the list it was used only three times. Other words that are used less frequently but considered significant by other projects are *genuin** (twice), *archiv** (twice), *certif** (twice) and *eviden** (once). A glance at Appendix 2 confirms that practitioners tend to understand authenticity as a concept related to accuracy, originality, and verification, rather than evidence, reliability, genuineness, warrant, integrity, auditability, or other terms that other research projects consider important.

Conclusion

This paper reports the results of a survey designed to identify practitioners' concepts of authenticity in their work activity. While the question of how to create and preserve the authenticity of electronic records has recently been asked in the field of archives, systematic research on how the concept is applied by practitioners in the area has not been addressed. As a preliminary study for a long-term research project, therefore, this survey attempted to explore the following questions: What does the concept of authenticity mean to practitioners?; How do practitioners define the concept of authenticity?; and Is the concept of authenticity understood differently in different

professional domains? The survey produced some interesting preliminary findings that will be explored as hypothesis in the follow-up research:

- Practitioners maintain a high recognition of the concept in both paper and electronic records. However less than half have ever been in a situation where it was necessary to verify authenticity in either format.
- Practitioners have basically the same understanding of authenticity for both paper records and electronic records. However they understand that with electronic records, ensuring authenticity is different from their paper counterparts because electronic records are more easily altered, rendered unstable, and left unsigned and they are generated and used in a different manner.
- To practitioners, the concept of authenticity relates primarily to accuracy. That is the reason why electronic records require a second authorizing source to verify their authenticity.
- The language used by practitioners to express issues of authenticity differs in from the language that has been used by prominent research projects. Even when both groups use the same language, different meanings are associated with the language. Moreover, different professional groups use different language in defining authenticity and these differences need to be analyzed.

Overall findings indicate a conceptual distance between the outcomes of such research projects and practitioners' understanding. Practitioners' understanding and usage of the concept "authenticity" and associated concepts are closely related to their working practice and experience within the work context. Users and practitioners deal with records every day in their work process, where they judge the authenticity of records as needed. Through those processes practitioners come to create and understand a working concept of authenticity in their own minds. Thus practitioners find it hard to understand the terms and frameworks identified by theoretical research projects. The results of this survey, therefore, suggest that further research should be focused on how to bridge the gap between research and practice. The UBC *Preservation of the Integrity of Electronic*

Records was an inductive project, where emphasis put on defining concepts and terminology based on a theoretical analysis. The University of Pittsburgh Project on *Functional Requirements for Evidence in Record-keeping* was deductive, in that it looked at warrant and record-keeping practices in real-life situations. However, where it fell down was in neglecting the practitioners' mental model and language. This research described here takes a deductive approach aiming at defining the concepts and terminology based on an analysis of practitioners' conceptual understanding in a variety of record-keeping and records management environments. Further research should be directed towards finding ways to apply other research projects to the uses and understanding of language of practitioners regarding authenticity. An in-depth analysis of different professional communities will provide insight into the ways practitioners use, manage, and understand authenticity according to professional groups. This paper has taken a necessarily circumscribed approach to such comparisons of the concept. By pursuing such real-life studies on authenticity of practitioners in their work places, the researcher hopes to make much useful and practicable for the practitioners the valuable research being conducted into questions of authenticity around records management.

References

The InterPARES Project International Research *on Permanent Authentic Records in Electronic Systems*. Available <http://www.interpares.org>, June 1, 1999.

The University of British Columbia's *The Preservation of the Integrity of Electronic Records* Project. Available <http://www.slais.ubc.ca/users/duranti>, June 1, 1999.

The University of Pittsburgh's *Functional Requirements for Evidence in Record-keeping*. Available <http://www.lis.pitt.edu/~nhprc>, June 1, 1999.

The U.S. Department of Defense's *Records Management Task Force Project*. Available <http://jrtc-emh.army.mil/recmgt>, June 1, 1999.

Appendix 1

Authenticity of Records

Background

This survey is being conducted as part of a doctoral research project that is exploring how different communities create, use, manage, and understand the concept of authenticity in records. This project examines how people currently consider issues related to authenticity in record transmission and what “authentic” records mean in different communities.

This survey is strictly anonymous and your participation is completely voluntary. IP addresses or any other information about identifying the sources will not be recorded. The results of this survey will be used only for this research project. Please return the survey by May 25, 1998. If you have any questions or comments, please email to Eun Park (eun@ucla.edu).

Subject's Background

1. Which of the following describes your profession? (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Records manager | <input type="checkbox"/> Information resources manager |
| <input type="checkbox"/> Senior administrator | <input type="checkbox"/> Attorney |
| <input type="checkbox"/> Systems analyst | <input type="checkbox"/> Programmer |
| <input type="checkbox"/> Archivist | <input type="checkbox"/> Librarian |
| <input type="checkbox"/> Archives assistant | <input type="checkbox"/> Library assistant |
| <input type="checkbox"/> Technical assistant | <input type="checkbox"/> Others (Please specify) |
- : _____

2. Which of the following describes your present employer? (Check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Government agency | <input type="checkbox"/> Corporation |
| <input type="checkbox"/> Educational institution | <input type="checkbox"/> Non-profit organization |
| <input type="checkbox"/> Research institution | <input type="checkbox"/> Non-academic cultural institution |
| <input type="checkbox"/> Law firm | <input type="checkbox"/> Medical institution |
| <input type="checkbox"/> Utility | <input type="checkbox"/> Military |
| <input type="checkbox"/> Financial services | <input type="checkbox"/> Others (Please specify) |
- : _____

3. To which of the following electronic listgroups do you belong?

- | | |
|---|--|
| <input type="checkbox"/> Archival Cataloging Listserv | <input type="checkbox"/> Archives and Archivists Listserv |
| <input type="checkbox"/> Conservation DistList | <input type="checkbox"/> Association for Moving Image Archivists |
| <input type="checkbox"/> Electronic Records Listserv | <input type="checkbox"/> Digital Libraries Research mailing list |
| <input type="checkbox"/> Rare Books and Special Collections | <input type="checkbox"/> Records Management Listserv |
| <input type="checkbox"/> SAA Student Chapter Listserv | <input type="checkbox"/> Study of Material Culture |
| <input type="checkbox"/> UCLA DLIS Archives Listserv | <input type="checkbox"/> Visual Communications Discussion |
| <input type="checkbox"/> Other professional listgroups | |

Electronic Records and Communications

4. Have you used any kind of electronic system that creates records? (For example, project management systems, compliance systems, E-mail, personnel management systems, electronic patient records systems, etc.)

- Yes No

5. How long have you used such systems?

- | | | | |
|---|---|---|------------------------------------|
| <input type="checkbox"/> Less than 6 months | <input type="checkbox"/> 6 month - 1 year | <input type="checkbox"/> 1-2 years | <input type="checkbox"/> 2-5 years |
| <input type="checkbox"/> 5-7 years | <input type="checkbox"/> 8-10 years | <input type="checkbox"/> more than 10 years | |

6. What sorts of records do these systems create? (Please specify)

Authenticity of Paper Records

7. Have you ever considered issues related to authenticity in paper records?

Yes No

8. Have you ever been in a situation where you have needed to prove that the authenticity of paper records is important?

Yes No

9. Can you describe the situation? (Please specify)

10. How do you judge whether a paper record is authentic? (Please specify)

Authenticity of Electronic Records

11. Have you ever considered issues related to authenticity in electronic records?

Yes No

12. Have you ever been in a situation where you have needed to prove that the authenticity of electronic records is important?

Yes No

13. Can you describe the situation? (Please specify)

14. How do you judge whether an electronic record is authentic? (Please specify)

Preferred Records Format

15. When you work with records, which format do you trust most and why?

Paper records Electronic records
 Others (Please specify)

Why: (Please specify)

16. Please write down how you would define authenticity in the context of your professional activity

17. May I contact you again for future information?

Yes No

Thank you for your participation. Please return by May 25, 1998 to Eun Park (eun@ucla.edu).

Appendix 2

Frequency of Morphological Clusters in Defining Authenticity

Total number of words: 3323

Total number of words after the exclusion of stop words: 1652

Unique word: 951

Rank	Stem	Occurrence	Percent (/3323)	Percent (/1652)
1	Record*	79	2.38	4.78
2	Authent*	34	1.02	2.06
3	Inform*	27	0.81	1.63
4	Document*	26	0.78	1.57
5	Creat*	23	0.69	1.39
6	Origin*	21	0.63	1.27
7	Accura*	18	0.54	1.09
8	Person*	15	0.45	0.91
9	Author*	15	0.45	0.91
10	Electron*	14	0.42	0.85
11	Truth*	13	0.39	0.79
12	Issu*	12	0.36	0.73
13	Verif*	12	0.36	0.73
14	Paper*	12	0.36	0.73
15	Librar*	11	0.33	0.67
16	Abilit*	11	0.33	0.67
17	Sign*	11	0.33	0.67
18	Catalog*	11	0.33	0.67
19	Copy*	11	0.33	0.67
20	Proce*	10	0.30	0.61
21	Standard*	10	0.30	0.61
22	Purpos*	10	0.30	0.61
23	Dat*	9	0.27	0.54
24	Tim*	9	0.27	0.54
25	Source*	9	0.27	0.54
26	Mean*	9	0.27	0.54
27	Biblio*	9	0.27	0.54
28	Us*	9	0.27	0.54
29	Work*	9	0.27	0.54
30	Act*	8	0.24	0.48
31	Matter*	8	0.24	0.48
32	Relat*	8	0.24	0.48
33	Form*	8	0.24	0.48
34	Quest*	8	0.24	0.48
35	Agen*	7	0.21	0.42
36	Prov*	7	0.21	0.42
37	Business*	7	0.21	0.42
38	Content*	7	0.21	0.42
39	Context*	7	0.21	0.42
TOTAL (n)		544	16.33%	32.90%